

In re: Szlam et al.  
Filed: November 10, 1999  
Serial No.: 09/437,414  
Page 14

REMARKS

Applicants appreciate the Examiner's review of the above-identified patent application and respectfully request reconsideration and allowance in view of the above amendments and following remarks. With this amendment, claims 102-110 had been added. Accordingly, claims 93-110 are pending.

Applicants appreciate the Examiner granting a telephone interview with applicant's representative on June 16, 2004. During this interview, the Examiner suggested that independent claims 93, 96, and 99 would be allowable if rewritten to specify that the statistic obtained is a statistic on a temporary queue, and that this statistic on the temporary queue is used to adjust the processing of either inbound or outbound communications. In view of this, Applicants have added claims 102-110 to include these limitations. Applicants appreciate the Examiner's remarks suggesting the patentability of those claims.

Claims 93-101 have been rejected under 35 U.S.C. § 102(e) as being anticipated by Oliphant et al. (U.S. Patent No. 4,881,261, hereinafter referred to as "Oliphant"). Applicants respectfully traverse this rejection.

Applicants respectfully submit that the Examiner has

In re: Szlam et al.  
Filed: November 10, 1999  
Serial No.: 09/437,414  
Page 15

misinterpreted Oliphant. Oliphant discloses a method for predictive pacing (dialing) of calls. Predictive pacing is used solely in outbound communications since inbound calls are received and not dialed, and therefore cannot be paced. Predictive pacing is a set of instructions used by an automated outbound dialer to determine when to initiate a call attempt. The system can speed up the dialing speed when too many idle agents are detected, or slow down the pace if too many live answers are unable to be matched up with a live agent.<sup>1</sup> In contrast, a preview dialer is a device that presents the account information and phone number on the screen to allow the agent to "preview" the information before instructing the dialer to dial (or not dial) the call.<sup>2</sup>

As stated in Oliphant,

one of the major issues facing the designer of a fully automated outbound dialing system is the problem of call pacing; that is, determining the rate at which new calls [outbound calls] should be dialed so that available gate servers typically such as agents... are effectively utilized while called parties [outbound calls] are not subjected to unacceptable delays. The present invention provides an algorithm which may be used to resolve the pacing issue.<sup>3</sup>

<sup>1</sup> See The Call Center School, Glossary of Call Center Terms,  
<http://www.thecallcenterschool.com/glossary.html#P>

<sup>2</sup> Id.

In re: Szlam et al.  
Filed: November 10, 1999  
Serial No.: 09/437,414  
Page 16

To put it another way, one of the issues facing pacing of outbound calls is that the delay between when a called party answers the phone and when an agent is connected must be sufficiently small so as not to cause the called party to hang-up. The basic theory behind predictive call pacing is to take advantage of the fact that not all outbound calls will result in a successful connection; i.e., some of the outbound calls will result in busy signals, unanswered calls, answering machines, hang-ups, and inoperative numbers. Consequently, predictive call pacing places a number of outbound calls that is higher than the number of available agents since not all the outbound calls will result in a successful connection.

If the pacing rate is too low, then agents will not have calls to be connected to, and thus will be idle. This condition, of course, results in inefficiency. On the other hand, if the pacing rate is too high, then there will not be enough agents available to be connected to the successful calls.

This results in an "empty line" (i.e., no one will respond when the called party answers) and the called party will likely hang-up. This, of course, is to be avoided.

---

<sup>3</sup> Oliphant, Col. 6, lines 40-48.

In re: Szlam et al.  
Filed: November 10, 1999  
Serial No.: 09/437,414  
Page 17

Accordingly, there are three basic categories of outbound calls when using a pacing system: (1) calls in the process of being set-up, i.e., calls in the process of route selection, calls in the process of trunk selection, calls in the process of being dialed, dialed calls waiting for tones, etc.; (2) completed calls connected to agent, i.e., calls which have been successfully answered and connected to agents; and (3) calls which have been answered, but which have not yet been connected to an available agent. It is this third category that must be monitored in order to ensure that the pacing rate does not result in an unacceptable delay between when the call is answered by the called party and is connected to the agent. This delay between when a called party answers and when an agent is connected to the line is the subject of Oliphant.

Applicants respectfully submit that these three categories correspond to categories A, C, and B, respectively, disclosed in Oliphant. See Col. 7, lines 52-64. More particularly, Applicants respectfully submit that category B disclosed in Oliphant is an outbound queue, and not an inbound queue as suggested by the Examiner in the present office action.

In the present office action, the Examiner asserts that

No  
calls to  
a agent  
inbound

In re: Szlam et al.  
Filed: November 10, 1999  
Serial No.: 09/437,414  
Page 18

Olyphant teaches,

that the total calls managed are divided into calls being set-up (outbound calls) [Category A], calls in a queue waiting agents (incoming calls) [Category B] and calls connected to an agent (both inbound and outbound) [Category C] so as to keep the total number of calls constant and achieving a desired delay in the incoming call queue (Col. 7, lines 35-44 and 55-64). By adjusting the pacing rate (number of outgoing calls) the number of calls in the queue (incoming calls) is adjusted so that the desired delay is achieved. See present Office Action, paragraph 3(a). (Emphasis added.)

Applicants respectfully submit that the "calls in queue waiting agents" and the "number of calls in the queue" are not incoming calls as suggested by the Examiner, but rather are outbound calls which have been successfully answered by the called party and are waiting to be connected to an available agent. Applicants further submit that the "desired delay" to be achieved is the delay in connecting a called party to an agent (i.e., an outbound call), AND NOT the delay between when a party who has CALLED the ACD (i.e., an incoming call) is connected to an agent.

*yes? but also Outbound*

Applicants submit that this interpretation makes sense when Olyphant is considered as a whole, and particularly in light of the statements in Olyphant describing one of the major issues in

In re: Szlam et al.  
Filed: November 10, 1999  
Serial No.: 09/437,414  
Page 19

"a fully automated outbound dialing system is the problem of call pacing; that is, determining the rate at which new calls [outbound calls] should be dialed so that available ...agents... are effectively utilized while called parties [outbound calls] are not subjected to unacceptable delays." Moreover, Oliphant repeatedly states, "The present invention provides a novel predictive pacing algorithm for use in outbound call processing." (See Col. 4, lines 13-15; See also Col. 5, lines 62-64. "The novel call pacing management functions are provided for system-controlled outbound calling with the Galaxy ACD.;" see also, Col. The object of this pacing algorithm is to initiate new outbound calls at a rate which minimizes the average delay in queue while maximizing the agent utilization.". (Emphasis added.))

Oliphant further states, "The basic model is that the database system has a list of calls (e.g. a campaign) to be placed through the ACD 14 [i.e., outbound calls]. These [outbound] calls, when answered, will be placed in a queue and then routed to an agent 16 when available."<sup>4</sup> This "queue", i.e., answered calls waiting to be connected to an available agent, is the queue to

In re: Szlam et al.  
Filed: November 10, 1999  
Serial No.: 09/437,414  
Page 20

which Oliphant is referring. There is nothing in Oliphant to suggest that this "queue" includes anything but answered outbound calls waiting to be connected to an available agent.

Assuming, arguendo, that the "queue" includes both inbound as well outbound calls as suggested by the Examiner, Applicants respectfully submit that Oliphant still does not read on claims 93-95 since Oliphant ONLY adjusts the pacing rate, i.e., the number of OUTBOUND calls, whereas claims 93-95 recite that the processing of inbound calls is adjusted.

This position is supported at paragraphs 3(a) and 3(b) of the Response to Arguments section of the present office action. Paragraph 3(a) states, in relevant part, "By adjusting the pacing rate (number of outgoing calls) the number of calls in the queue (incoming calls) is adjusted so that the desired delay is achieved." Moreover, paragraph 3(b) states, in relevant part, "The pacing rate [number of outing calls] is adjusted ... in order to maintain the number of calls constant and achieving the desired delay. Thus if the delay in the queue is getting too large, the pacing rate [number of outing calls] is reduced ... If the delay in queue is not too large, then the pacing rate [number of outing

---

\* Oliphant, Col. 6, lines 19-22.

In re: Szlam et al.  
Filed: November 10, 1999  
Serial No.: 09/437,414  
Page 21

calls] is increased." Nowhere does Oliphant disclose or suggest, that the processing of inbound calls is adjusted. In fact, Applicants respectfully submit that the only thing that Oliphant adjusts is the pacing rate of outbound calls.

The Examiner points to Appendix A, Equations 13 and 14 in paragraph 2 of the present office action. Upon further review, Oliphant states "equation 13 describes the probably of having exactly NS calls in the set-up state. ...if necessary, equation 13 can be rewritten as equation 14." However, Applicants respectfully submit that only outbound calls would be properly categorized as being "in the set-up state". Accordingly, even if the Examiner's assertion that the "calls in queue" includes both inbound and outbound calls is true, Applicants respectfully submit that Oliphant still does not disclose or suggest adjusting the processing of outbound calls since Oliphant only discloses adjusting the pacing rate (rate of placing outbound calls).

Lastly, Applicants respectfully submit that Oliphant has been considered in parent cases U.S. Patent No. Re 36,416 (issued Nov. 30, 1999) as well as U.S. Patent No. 5,214,688 (issued May 25, 1993). For at least the reasons given in these parent applications, Applicants respectfully submit that the present

In re: Szlam et al.  
Filed: November 10, 1999  
Serial No.: 09/437,414  
Page 22

application is also allowable over Oliphant.

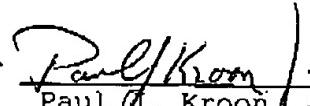
Accordingly, Applicants respectfully submit that the pending claims are in condition for allowance. Applicants also submit that the present amendments clearly place the application in condition for allowance and do not require any additional consideration and/or search. Therefore, entry of the present amendments is respectfully requested pursuant to 37 C.F.R. § 1.116. Early and favorable action is respectfully requested.

The Examiner is invited to telephone the undersigned, Applicants' Attorney of Record, to facilitate advancement of the present application.

Respectfully submitted,

Szlam et al.

By

  
Paul J. Kroon Jr., Esq.  
Registration No. 51,902  
Attorney for Applicants

BOURQUE & ASSOCIATES, P.A.  
835 Hanover Street, Suite 301  
Manchester, New Hampshire 03104

Telephone: (603) 623-5111  
Facsimile: (603) 624-1432

Date: June 21, 2004